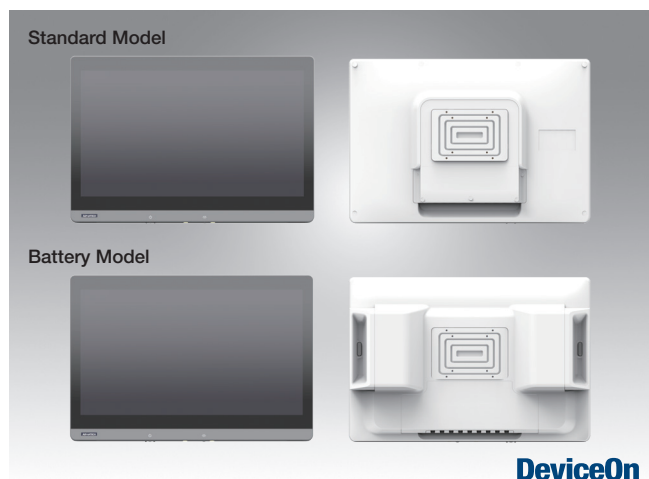


# POC-421

Preliminary

## 21" Point-of-Care Terminal with 14<sup>th</sup> Generation Intel® Processor



### Features

- 14<sup>th</sup> generation Intel® Core™ Ultra 5 or Ultra 7 processor
- 21.5" full HD display with multi-touch P-CAP control
- M.2 expansion slots for integrating add-on modules
- Fanless design with upgrade IP54-rated protection for superior hygiene and infection control
- Equipped with Advantech's DeviceOn device management software
- Optional Wi-Fi 6, Bluetooth, Dual RFID, smart card reader and auto-focus 5 megapixel camera
- Equipping battery packs enhances its suitability for medical cart mobility
- Large-capacity batteries (140Wh x2) to support 10-12 hours of runtime
- Available for adding an additional backup battery for non-stop power during battery swapping
- Isolated I/O ports are supported



### Introduction

POC-421, featuring an integrated NVME SSD for real-time data processing and storage, now includes the added benefit of enhanced suitability for medical cart mobility through equipping battery packs. Compliant with IEC/EN60601-1-2 Medical EMC standards, POC-421 terminals ensure reliable operation in diverse healthcare environments.

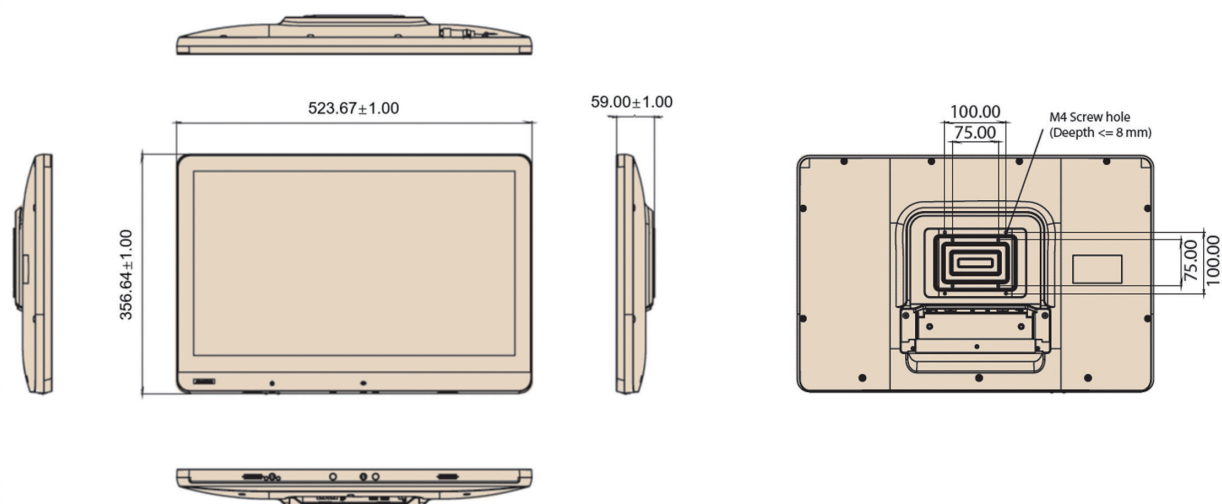
Moreover, POC-421 is equipped with Advantech's DeviceOn software, which is a next-generation unified device management solution based on the WISE-DeviceOn platform. With support for batch operations and multi-device control, DeviceOn enables easy device configuration and deployment for convenient remote device management.

### Specifications

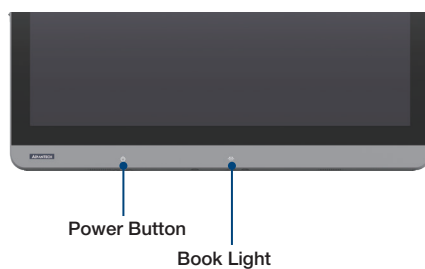
|                                     |                              |                                                                                                                                                                            |
|-------------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System                              | Processor                    | 14 <sup>th</sup> generation Intel® Core™ Ultra 5 processor, up to 4.30 GHz or Intel® Core™ Ultra 7 processor, up to 4.8GHz                                                 |
|                                     | Memory (default)             | Memory (default) 16GB DDR5 (supports up to 32GB DDR5 SODIMM)<br>Operating System (optional) Windows 10 IoT Ent (64 bits only); Windows 11 Pro (64 bits only); Ubuntu 22.04 |
| Storage                             | Primary Storage (optional)   | NVME M.2 SSD 256GB (M.2 2280)                                                                                                                                              |
| Display                             | Size                         | 21.5"                                                                                                                                                                      |
|                                     | Max Resolution               | 1920 x 1080 (FHD)                                                                                                                                                          |
|                                     | Contrast Ratio               | 1000                                                                                                                                                                       |
|                                     | Touch Function               | 10-point multi touch P-CAP (clear glass), AG option                                                                                                                        |
| I/O                                 | USB 3.2 Type A               | 4                                                                                                                                                                          |
|                                     | USB 3 Type C                 | 1 (With 27W, maximum 9V/3A, power delivery, and ALT mode support.)                                                                                                         |
|                                     | HDMI                         | 1                                                                                                                                                                          |
|                                     | LAN (1.5KV Isolation)        | 2                                                                                                                                                                          |
|                                     | COM (RS232)                  | 1 (Optional USB 2.0 x 2)                                                                                                                                                   |
|                                     | Mic in/head phone out        | 1 TRRS port                                                                                                                                                                |
|                                     | M.2 2230 E. Key              | 1 (for Wi-Fi 6/Bluetooth 5.3 module)                                                                                                                                       |
| Expansion Slots                     | iDoor                        | 4KV idoor (1COM+2USB); 4KV idoor (1LAN); 1.5KV idoor (1COM), optional by only Battery Model                                                                                |
| Other Functions                     | Power Button                 | 1                                                                                                                                                                          |
|                                     | Speaker                      | 2 x 2W                                                                                                                                                                     |
|                                     | Book Light                   | Support                                                                                                                                                                    |
|                                     | Camera                       | 1 x 5 megapixel (optional)                                                                                                                                                 |
|                                     | TPM 1.2/2.0                  | 2.0                                                                                                                                                                        |
| Power Input                         | DC / AC                      | DC 19V (Medical DC Jack pin)                                                                                                                                               |
| IP Rating                           | Front Panel                  | IP65                                                                                                                                                                       |
|                                     | System                       | IPX1 (I/O without cover) with Standard Model<br>IP43 (I/O with cover) with Battery<br>IP54 (I/O with cover) without Battery                                                |
| Authentication Solution (Either or) | RFID Reader                  | Optional (select either RFID or Smart Card Reader)                                                                                                                         |
|                                     | Smart Card Reader            | Optional (select either RFID or Smart Card Reader)                                                                                                                         |
| Battery Solutions                   | Backup Battery               | 20Wh (optional only by Battery Model)                                                                                                                                      |
|                                     | Hot-Swap Battery             | 140Wh x2 (default), only by Battery Model                                                                                                                                  |
|                                     | Charging in Charging Station | 2 slots: Charging time <2 Hours from 20% to 80%                                                                                                                            |
| Certificate                         | EMC & Safety                 | Medical CE/FCC<br>MDR<br>RED<br>ErP<br>Battery pack: IEC62133, UN38.3                                                                                                      |
| Physical Characteristics            | Dimensions (W x H x D)       | 524 x 357 x 59 mm/20.63 x 14.06 x 2.32 in (Standard Model)                                                                                                                 |
|                                     | Weight                       | 6.29 kg/13.86 lb (Standard Model)                                                                                                                                          |
|                                     | VESA Mount                   | 100 x 100; 75 x 75 mm                                                                                                                                                      |
| Environment                         | Temperature                  | 0 - 35 °C/32 ~ 95 °F (Operating)<br>0 - 50 °C/32 ~ 122 °F (Storage)                                                                                                        |
|                                     | Humidity                     | 95%, 40°C (Operating)<br>95%, 60°C (Storage)                                                                                                                               |
|                                     | Shock Resistance             | 10G peak acceleration (11 ms duration)                                                                                                                                     |
| Warranty                            | System                       | 3 year                                                                                                                                                                     |

## Standard Model Dimensions

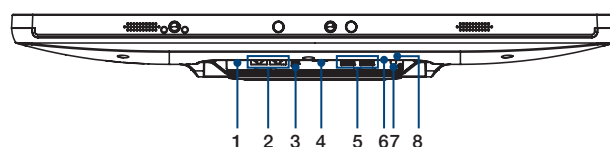
Unit: mm



## Front Function Keys



## I/O Ports

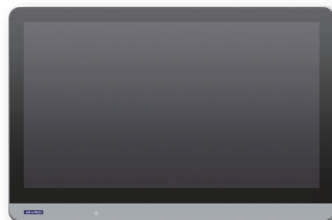


- |                                     |                               |
|-------------------------------------|-------------------------------|
| 1. DC-IN 19V                        | 5. 4 x USB 3.1                |
| 2. 2 x Gigabit Ethernet (Isolation) | 6. Mic in/Headphone out       |
| 3. HDMI                             | 7. 1 x Type C                 |
| 4. 1 x COM port (RS232)             | 8. Equipotential terminal PIN |

## Multimodal



All-in-One PC



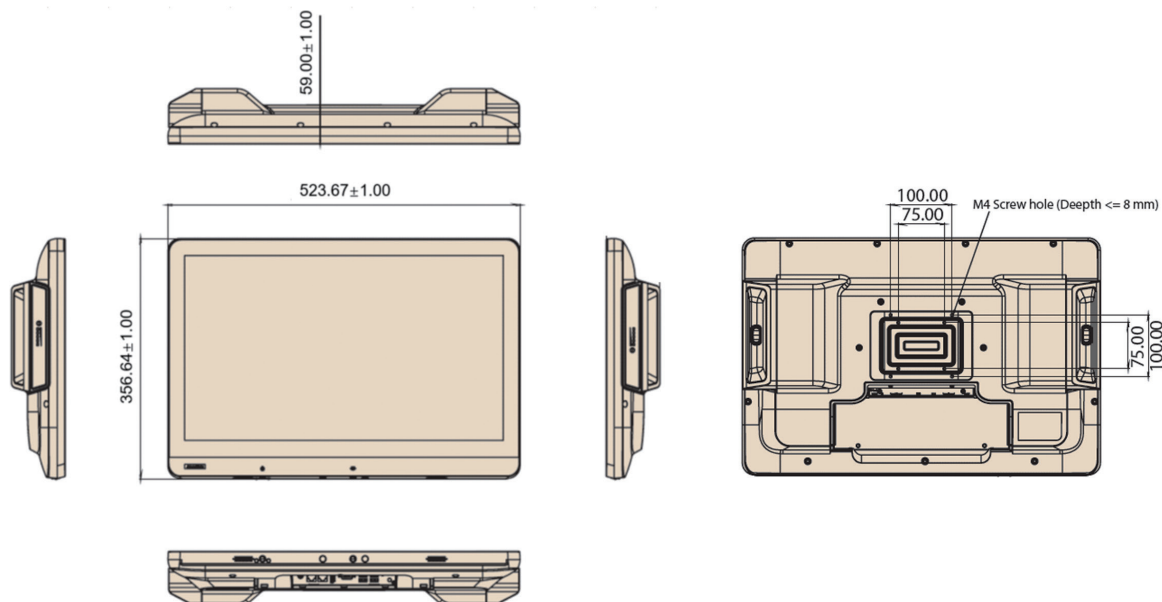
Touch Display (PAX-1)



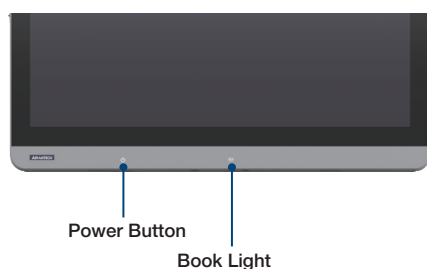
Box PC (USM-100)

## Battery Model Dimensions

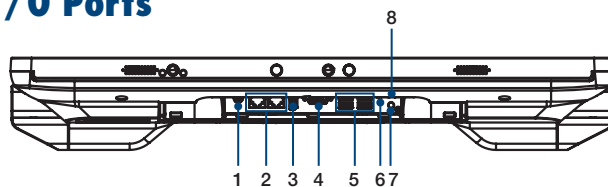
Unit: mm



## Front Function Keys



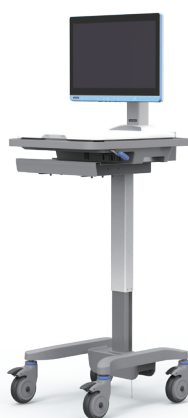
## I/O Ports



- |                                     |                               |
|-------------------------------------|-------------------------------|
| 1. DC-IN 19V                        | 5. 4 x USB 3.1                |
| 2. 2 x Gigabit Ethernet (Isolation) | 6. Mic in/Headphone out       |
| 3. HDMI                             | 7. 1 x Type C                 |
| 4. 1 x COM port (RS232)             | 8. Equipotential terminal PIN |

## Medical Carts

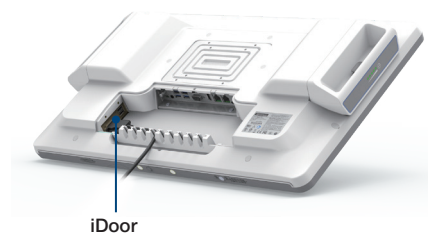
AMiS-30EG



AMiS-30EP



## iDoor Ports



Optional isolated iDoor selected each as blow:

1. 1 x COM + 2 USB 4KV\*
2. 1 x LAN 4KV\*
3. 1 x COM 1.5KV\*

## Battery Model Accessories

### Hot-Swapping Battery Module



### LED Indicator



### Charging Station



## Battery Module

| Part Number    | Description                                                              |
|----------------|--------------------------------------------------------------------------|
| 96PD-01847     | Battery pack with (1 pcs) 140Wh Battery of POC – 4 Hot-Swap Power system |
| POC-IPSM150CS2 | Charging station (2 slots) of POC -4 Power System                        |

## Battery Pack Specification

|                       |                                              |
|-----------------------|----------------------------------------------|
| Standard Version      | 96PD-01847                                   |
| Battery Pack Type     | Lithium-ion battery                          |
| Battery Pack Capacity | 140Wh                                        |
| Total Capacity**      | 280Wh (2 x battery packs, 140Wh per battery) |
| Battery Runtime       | 9~11 hours                                   |
| Battery Lifespan      | 500 cycle time 70%                           |
| Capacity Indicator    | LED indicator with 5 levels                  |
| Weight (Estimated)    | 868g/1.9lb                                   |

\*\*Hot swap batteries are 2 pieces.

## Recommended Mounting Solution

|                         |                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------|
| Model Name              | ARES-2421R                                                                            |
| Part Number             | ARES-2421R-HA74100                                                                    |
| Photo                   |  |
| Max. Support Weight     | 2 - 8kg                                                                               |
| Max. Support Panel Size | ≤ 27"                                                                                 |
| VESA Information        | 75 x 75 mm<br>100x100 mm                                                              |

For more information, please click this link: <https://bit.ly/3T7dLMR>

## CTOS Service

### Ordering Information

| Level   | Part number       | Description                                                            | CPU     | DRAM      | Battery          | Touch | SSD  | WIFI & BlueTooth       |
|---------|-------------------|------------------------------------------------------------------------|---------|-----------|------------------|-------|------|------------------------|
| Medical | POC-421-14A01D-CE | 21.5", Core U7, 16G RAM, 256G, WIFI6, IP54, P-CAP Touch, MDR           | Ultra 7 | 16GB DDR5 | NA               | P-CAP | 256G | WIFI 6 & BlueTooth 5.3 |
| Medical | POC-421-14B01D-CE | 21.5", Core U5, 16G RAM, 256G, WIFI6, IP54, P-CAP Touch, MDR           | Ultra 5 | 16GB DDR5 | NA               | P-CAP | 256G | WIFI 6 & BlueTooth 5.3 |
| Medical | POC-421-14A02B-CE | 21.5", Core U7, 16G RAM, 256G, WIFI6, IP43, BAT Ver., P-CAP Touch, MDR | Ultra 7 | 16GB DDR5 | Optional Battery | P-CAP | 256G | WIFI 6 & BlueTooth 5.3 |
| Medical | POC-421-14B02B-CE | 21.5", Core U5, 16G RAM, 256G, WIFI6, IP43, BAT Ver., P-CAP Touch, MDR | Ultra 5 | 16GB DDR5 | Optional Battery | P-CAP | 256G | WIFI 6 & BlueTooth 5.3 |

\*This model is default without 20Wh backup battery (optional).

### WIFI, IP54 / IP43, Touch Display Module

| Part number | Description                                           | Grade       |
|-------------|-------------------------------------------------------|-------------|
| 98R8POC4080 | POC-421,IP54,waterproof suite kit package,w/o Battery | Global/IP54 |
| 98R8POC4081 | POC-421,IP43,waterproof suite kit package,w/ Battery  | Global/IP43 |
| 98R8POC4040 | POC-4,21.5" Touch display module,W/Cover              | Global      |

### Memory

| Part number        | Description                                              |
|--------------------|----------------------------------------------------------|
| SQR-SD5N8G5K6SNGPB | 262pin SODIMM DDR5 5600 8GB 1.1v 1Gx16 (0~95 °C) Samsung |
| SQR-SD5N16G5K6SNPB | 262pin 5600 2GX8 16GB SODIMM 1.1v 2Gx8 (0~95 °C) Samsung |
| SQR-SD5N32G5K6SNPB | 262pin 5600 2GX8 32GB SODIMM 1.1v 2Gx8 (0~95 °C) Samsung |

### M.2 2280 SQF NVME

| Part number        | Description                                                                    |
|--------------------|--------------------------------------------------------------------------------|
| SQF-C8MV2-256GDFES | SQF PCIe/NVMe M.2 2280 OPAL 730-D, Gen.4, LPM ON, 256G 3D TLC BiCS5 (-20~85°C) |
| SQF-C8MV2-512GDFES | SQF PCIe/NVMe M.2 2280 OPAL 730-D, Gen.4, LPM ON, 512G 3D TLC BiCS5 (-20~85°C) |
| SQF-C8MV4-1TDFES   | SQF PCIe/NVMe M.2 2280 OPAL 730-D, Gen.4, LPM ON, 1T 3D TLC BiCS5 (-20~85°C)   |